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PATENT  
910000-2028.1#5  
Dmt  
6-12-03IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Borenstein et al.  
Serial No. : 10/038,891  
Filed : January 2, 2002  
For : TISSUE ENGINEERING OF THREE-DIMENSIONAL  
VASCULARIZED USING MICROFABRICATED POLYMER  
ASSEMBLY TECHNOLOGY  
Examiner : To Be Assigned  
Art Unit : To Be Assigned

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New York, NY 10151EXPRESS MAIL

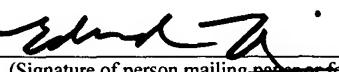
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Date of Deposit: November 6, 2002

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Edward Nay

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(Signature of person mailing paper or fee)INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

The Examiner's attention is respectfully drawn to the enclosed documents listed on the accompanying PTO form 1449.

As this Information Disclosure Statement is being filed before the mailing of the first Office Action, it is believed that no fee is required for entry of this paper. However, the Commissioner is hereby authorized to charge any such fee, or credit any overpayment to Deposit Account 50-0230.

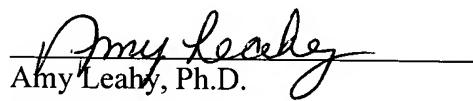
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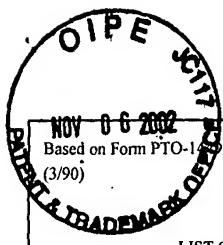
The filing of this Information Disclosure Statement is not an admission that the documents identified herein constitute prior art to the present application.

Applicants respectfully request that the Examiner considers and makes of record the documents cited herewith and that a copy of Form PTO-1449 be initialed by the Examiner and returned to the undersigned.

Respectfully submitted,

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Attorneys for Applicants

  
Amy Leahy, Ph.D.  
Reg. No. 47,739  
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	US 6,143,293	11/7/00	Weiss et al.			
	AB	US 6,245,566	6/12/01	Gearhart et al.			
	AC	US 5,843,780	12/1/98	Thomson			
	AD	US 6,200,802	3/13/01	Greene et al.			
	AE	US 5,486,359	1/23/96	Caplan et al.			
	AF	US 5,849,553	12/15/98	Anderson et al.			
	AG	US 5,061,620	10/29/91	Tsukamoto et al.			
	AH	US 6,183,781	2/6/01	Burke			
	AI	US 5,843,780	12/1/98	Thomson			
	AJ	US 6,200,802	3/13/01	Greene et al.			
	AK	US 5,204,055	4/20/93	Sachs et al.			

FOREIGN PATENT DOCUMENTS

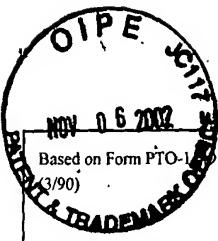
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL	WO 01/11011	02/15/01	WIPO				
	AM	WO 96/40002	12/19/96	WIPO				
	AN							
	AO							
	AP							

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AQ		Bell et al., Science 221, 1052 (1981)
AR		Burke, et al., Ann Surg 194, 413 (1981)
AS		Langer, et al. Science 260, 920 (1993)
AT		Vacanti, et al., Materials Research Society 252, 367 (1992)
AU		Vacanti, et al., Lancet 354, 32 (1999)

EXAMINER	DATE CONSIDERED

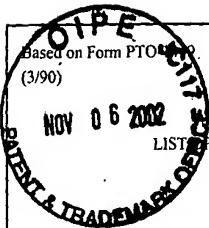
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Based on Form PTO-141 (3/90)			ATTY. DOCKET NO. <b>910000-2028.1</b>	SERIAL NO. <b>10/038,891</b>
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			FILING DATE <b>January 2, 2002</b>	GROUP
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AW	Rennie, J. <i>Scientific American</i> 280, 37 (1999)			
AX	Lysaght, et al., <i>Tissue Eng</i> 4(3), 231 (1998)			
AY	Amedee et al. <i>Differentiation</i> , 58:157-164 (1994)			
BA	Burke, et al., <i>Ann Surg</i> 194, 413 (1981)			
BB	Compton, et al., <i>Laboratory Investigation</i> 60, 600 (1989)			
BC	Parenteau, et al., <i>Journal of Cellular Biochemistry</i> 45, 24 (1991)			
BD	Parenteau, et al., <i>Biotechnology and Bioengineering</i> 52, 3 (1996)			
BE	Purdue, et al., <i>J. Burn Care Rehab</i> 18, 52 (1997)			
BF	Hansbrough and Franco, <i>Clinical Plastic Surg</i> 25, 407 (1998)			
BG	Vacanti, et al., <i>Materials Research Society</i> 252, 367 (1992)			
BH	Kane, et al., <i>Biomaterials</i> 20, 2363 (1999)			
BI	Griffith, et al., <i>Annals of Biomed. Eng.</i> , 26 (1998)			
BJ	Griffith, et al., <i>Annals of Biomed. Eng.</i> , 831 (1997)			
BK	Folch, et al., <i>Biotechnology Progress</i> , 14, 388 (1998))			
BL	Eiselt, et al., <i>Biotechnol. Prog.</i> 14, 134 (1998)			
BM	Wang et al, <i>Nature Biotech</i> 20, 602 (2002)			
BN	Runyan, et al., <i>Semiconductor Integrated Circuit Processing Technology</i> (Addison-Wesley Publishing Co., Reading MA 1990); <i>Proceedings of the IEEE Micro Electro Mechanical Systems Conference 1987-1998</i>			
BO	Jansen, et al., "The Black Silicon Method IV: The Fabrication of Three-Dimensional Structures in Silicon with High Aspect Ratios for Scanning Probe Microscopy and Other Applications," <i>IEEE Proceedings of Micro Electro Mechanical Systems Conference</i> , pp. 88-93 (1995)			
BP	Frazier, et al., "Two dimensional metallic microelectrode arrays for extracellular stimulation and recording of neurons", <i>IEEE Proceedings of the Micro Electro Mechanical Systems Conference</i> , pp. 195-200 (1993)			
BQ	Lehmann, "Porous Silicon--A New Material for MEMS", <i>IEEE Proceedings of the Micro Electro Mechanical Systems Conference</i> , pp. 1-6 (1996)			
BR	Laermer, et al., "Bosch Deep Silicon Etching: Improving Uniformity and Etch Rate for Advanced MEMS Applications," <i>Micro Electro Mechanical Systems</i> , Orlando, FL, USA, (Jan. 17-21, 1999)			
BS	Despont, et al., "High-Aspect-Ratio, Ultrathick, Negative-Tone Near-UV Photoresist for MEMS", <i>Proc. of IEEE 10<sup>th</sup> Annual International Workshop on MEMS</i> , Nagoya, Japan, pp. 518-522 (Jan. 26-30, 1997))			
BT	Henry, et al., "Micromachined Needles for the Transdermal Delivery of Drugs," <i>Micro Electro Mechanical Systems</i> , Heidelberg, Germany, pp. 494-498 (Jan. 26-29, 1998)			
BU	A.A. Ayon, S. Nagle, L. Frechette, A. Epstein and M.A. Schmidt, "Tailoring etch directionality in a deep reactive ion etching tool," <i>J. Vac. Sci. Tech. B</i> 18, 1412 (2000)			
BV	Sachs, et al., <i>Manufacturing Review</i> 5, 117-126 (1992)			
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		91000-2028.1	10/038,891
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BW	Xu, et al. Nat. Biotechnol., 19, 971 (2001)		
BX	Keller, et al. (1999) Exp. Hematol. 27:777-787		
BY	Marti, et al. (1995) Nature. 375:322-325		
BZ	Prelle, et al. (2000) Biochem. Biophys. Res. Commun. 277:631-638		
CA	Hardt, et al. (1985) Eur. J. Immunol. 15:472-478		
CB	Huelsken, et al. (2001) Cell. 105:533-545		
CC	Ji, et al. (2000) J. Bone Miner. Metab. 18:132-139		
CD	Migliorati, et al. (1987) J. Immunol. 138:3618-3625		
CE	Eghbali, et al. (1991) Proc. Natl. Acad. Sci. USA. 88:795-799		
CF	Niijima, et al. (1995) J. Neurosci. 15:1180-1194		
CG	Guo, et al. (1997) Dev. Biol. 184:61-69		
CH	Ling, et al. (1998) Exp. Neurol. 149:411-423		
CI	Lopez-Fernandez, et al. (2000) J. Biol. Chem. 275:21653-60		
CJ	Wang, et al. (1989) Leuk. Res. 13:1091-1097		
CK	Lako, et al. (2001) Mech. Dev. 103:49-59		
CL	Evans et al. (1981) Nature 292:154-156		
CM	Matsui et al. (1991) Nature 353:750-2		
CN	Thomson et al. (1995) Proc. Natl. Acad. Sci. USA. 92:7844-8		
CO	Thomson et al. (1998) Science 282:1145-1147		
CP	Shamblott et al. (1998) Proc. Natl. Acad. Sci. USA 95:13726-31		
CQ	Mitaka, et al., Biochem Biophys Res Commun 214, 310 (1995)		
CR	Taneto, et al., Am Jpathol 148, 383 (1996)		
CS	Mitaka, et al., Hepatology 29, 111 (1999)		
CT	Teebken, et al., Eur J. Vasa Endovasc. Surg. 19, 381 (2000)		
CU	Ranucci, et al., Biomaterials 21, 783 (2000)		
CV	Burg et al., J. Biomed. Mater. Res 51, 642 (2000)		
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<p style="text-align: center;">S P I E Based on Form PTO-1449 6/90)</p> <p style="text-align: center;">NOV 06 2002</p> <p style="text-align: center;">PATENTS TRADEMARKS</p> <p style="text-align: center;">LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)</p>			ATTY. DOCKET NO.  910000-2028.1	SERIAL NO.  10/038,891
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CW		Jo et al., SPIE 3877, 222 (1999)		
CX		Camporese, et al., IEEE Electron. Device Lett. EDL 2, 61(1981)		
CY		Block, et al., J Cell Biol, 132, 1133 (1996)		
CZ		Landry, et al., J Cell Biol, 101, 914 (1985)		
DB		Nishikawa, et al., Exp Cell Res, 223, 357 (1996)		
DC		Uyama, et al., Transplantation 55, 932 (1993)		
DD		Den Braber, et al. J. Biomed. Mater. Res. 40, 291 (1998)		
DE		Aiken, et al., J Pediatr Surg 25, 140 (1990)		
DF		Seglen, Methods Cell Biol 13, 29 (1976)		
DG		Schwerer, et al., Clinica Chemica Acta 163, 237 (1987)		
DH		Peterson JE J Pathol Bacteriol 89, 153 (1965)		
DI		Duffy, et al., Anal. Chem. 70, 4974 (1998)		
DJ		Mitaka, et al., Gastroenterol Hepatol 13 Suppl, S70 (1998)		
DK		Tateno, et al., Am J Pathol 149, 1593 (1996)		
DL		Laconi, et al., Am J. Pathol 153, 319 (1998)		
DM		Hansborough & Franco (1998) "Skin Replacements," Clin. Plast. Surg. 25(3): 407-23.		
DN		Henry, et al. (1998) "Micromachined Needles for the Transdermal Delivery of Drugs," The Eleventh Annual International Workshop on Micro Electro Mechanical Systems, Heidelberg, Germany, January 25-29, 1998.		
DO		Kourepinis et al. (1998) "Performance of MEMS Inertial Sensors," Position Location and Navigation Symposium, Aerospace & Electronic Systems Society, Palm Springs, California, April 20-23, 1996		
DP		McWhorter et al. (1997) "Volume 2: Micromachining and Trends for the Twenty-First Century," Handbook of Microlithography, Micromachinery and Microfabrication. Ed. P. Rai-Choudhury, Bellingham, WA: SPIE Press.		
DQ		Rennie, J. ed. (1999) Special Report: The promise of tissue engineering. Scientific American 280: 37.		
DR		Vacanti et al. (1992) "Tissue-Inducing Biomaterials," Materials Research Society Symposium Proceedings 252: 367		
DS		Langer & Vacanti, (1993) "Tissue Engineering," Science 260(5110): 920-6		
DT		Langer & Vacanti, (1999) "Tissue Engineering: The obstacles to building new organs from cells and synthetic polymers are daunting but surmountable," Scientific American 280, 86-89		
DU		Sunback & Vacanti, "Alternatives to liver transplantation: From hepatocyte transplantation to tissue-engineered organs," Gastroenterology 118: 438-442 (2000)		
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